

PAPI WITH NIGHT SENTINEL

INSTRUCTIONAL SUPPLEMENT

MULTI ELECTRIC P/N 5920-200

This Instructional Supplement covers the Night Sentinel Option for the Precision Approach Path Indicator system, developed in accordance with FAA AC-150/5345-28. This document is written as an addendum, and should be referred to in conjunction with the PAPI Instruction Book, Multi IB 5900-100-03. The Night Sentinel is available as an option on Multi Electric Style A PAPI systems, and allows for remote control of the PAPI system during nighttime conditions. During nighttime conditions, the PAPI system will turn on after the runway light circuit reaches a preset intensity. The Night Sentinel does not, however, allow for light intensity control; this is controlled by the Photo Cell, which causes the system to operate at low intensity at night. During the day, the PAPI system is not affected by the Night Sentinel. At this time, the system may only be switched on or off at the Power and Control Unit, and the Photo Cell causes the system to operate at full intensity when it is on. Tilt conditions will continue to affect the system in the same manner as if a Night Sentinel were not installed.

INSTALLATION: The Night Sentinel consists of a single circuit card which plugs into the Master Control circuit card on the PCU panel. A single length of wire is looped once through the current transformer mounted on the Night Sentinel circuit card. The ends of this length of wire are terminated at positions C1 and C2 on the main terminal block on the PCU panel. The secondary leads from a 30/45 watt isolation transformer connected in the airfield's series circuit lighting loop are connected to these same positions on the terminal block. This allows the current transformer to sense the current on the airfield and affect the PAPI system accordingly.

ADJUSTMENTS: Two potentiometers are provided on the Night Sentinel. The first, labeled **Delay**, allows the user to set a time delay between the time in which the Night Sentinel senses the airfield current, and the time in which it turns the system on. Turn this pot clockwise to decrease the time delay. The second, labeled **Set Pt.**, allows the user to adjust the set point for the airfield current at which the system will turn on. Turn this pot clockwise to lower the set point.

TROUBLESHOOTING:

Problem	Check	Corrective Action
PAPI system does not turn on with runway circuit	<ol style="list-style-type: none"> 1. Check Current Sensor set point. 2. Check all LHAs for tilts. 	<ol style="list-style-type: none"> 1. Adjust Current Sensor set point. 2. Resolve tilt condition.
PAPI system does not turn on at the same time as the runway circuit	<ol style="list-style-type: none"> 1. Check delay set point on Current Sensor. 	<ol style="list-style-type: none"> 1. Adjust delay set point.

